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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/820,533 | 03/30/2001 | Toshimichi Minowa | 381AS/44307C1 | 4156 |

7590 09/24/2003

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EXAMINER

TRAN, DALENA

ART UNIT PAPER NUMBER

3661

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,533

Applicant(s)

MINOWA ET AL.

Examiner

Dalena Tran

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-23, 26-29 and 31-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-23, 26-29 and 31-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 6/3/03. Claims 20-23, 26-29, and 31-38 are pending.
2. Claims 35-36 depend on claim 26, and claim 26 is an apparatus claim. Also, claims 37-38 depend on claim 28, and claim 28 is an apparatus claim. Correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 31-34 recites the limitation "the driving force" in "according to claims 20, 22".

There is insufficient antecedent basis for this limitation in the claim, the driving force is not disclose in claims 20 and 22.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 20-21 and 26-27, are rejected under 35 U.S.C. 102(b) as being unpatentable over Togai et al. (5,069,181) in view of Togai et al. (5,382,205).

As per claim 20, Togai et al. ('181) disclose a method of controlling a vehicle having a first running mode wherein a driving shaft torque of the vehicle is controlled according to a first target value determined from an accelerator pedal position and a second running mode wherein a

Art Unit: 3661

driving shaft torque of the vehicle is controlled according to a second target value determined from at least one environment operating condition ahead of vehicle, comprising: when first running mode is changed to second running mode determining a changing over time period from first running mode to second running mode based on a difference between first target value calculated in first running mode and second target value calculated in second running mode (see column 2, lines 10-50). Togai et al. ('181) do not disclose a third target value. However, Togai et al. ('205) disclose setting a third target value which varies from first target value to second target value in changing over time period (see columns 3-4, lines 36-54; column 8, lines 26-68; columns 10-11, lines 48-41; and columns 13-14, lines 10-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Togai et al. ('181) by combining setting a third target value which varies from first target value to second target value in changing over time period for reducing torque fluctuation in changing vehicle speed from the first running mode to second running mode.

Claim 26 is an apparatus claim corresponding to method claim 20 above. Therefore, it is rejected for the same rationales set forth as above.

As per claim 21, Togai et al. ('181) disclose the driving shaft torque of the first running mode is controlled to gradually approach driving shaft torque of the second running mode by controlling an air / fuel ratio of an engine of vehicle (see columns 3-4, lines 25-17).

Claim 27 is an apparatus claim corresponding to method claim 21 above. Therefore, it is rejected for the same rationales set forth as above.

6. Claims 22-23 and 28-29, are rejected under 35 U.S.C.102(b) as being unpatentable over O'Connell et al. (5,646,851) in view of Togai et al. (5,382,205).

As per claim 22, O'Connell et al. disclose a method of controlling a vehicle having a first running mode wherein an engine torque of the vehicle is controlled according to a first target value determined from an accelerator pedal position and a second running mode wherein a engine torque of the vehicle is controlled according to a second target value determined from at least one environment operating condition ahead of vehicle, comprising: when first running mode is changed to second running mode determining a changing over time period from first running mode to second running mode based on a difference between first target value calculated in first running mode and second target value calculated in second running mode (see the abstract; and columns 6-8, lines 7-27). O'Connell et al. do not disclose setting a third target value. However, Togai et al. disclose setting a third target value which varies from first target value to second target value in changing over time period (see columns 20-21, lines 41-45; and columns 25-26, lines 22-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of O'Connell et al. by combining setting a third target value which varies from first target value to second target value in changing over time period for adaptive controlling a change in vehicle speed of vehicle control system capable of controlling the engine under different control conditions and under the transitions among the control conditions.

As per claim 23, O'Connell et al. disclose the target value is controlled to gradually approach second target value by controlling an air / fuel ratio of the engine of vehicle (see columns 3-4, lines 9-51).

Claims 28-29 are apparatus claims corresponding to method claims 22-23 above. Therefore, they are rejected for the same rationales set forth as above.

Art Unit: 3661

7. Claims 31-32 and 35-36, are rejected under 35 U.S.C.102(b) as being unpatentable over Togai et al. (5,069,181), and Togai et al. (5,382,205) as applied to claims 20, and 26 above, and further in view of Etoh (5,048,631).

As per claims 31, and 35, Togai et al. ('181), and Togai et al. ('205) do not disclose controlling the driving force until a difference between the second and third target values becomes a predetermined value. However, Etoh discloses controlling the driving force according to third target value until a difference between the second and third target values becomes a predetermined value (see columns 2-3, lines 46-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Togai et al. ('181), and Togai et al. ('205) by combining controlling the driving force according to third target value until a difference between the second and third target values becomes a predetermined value for automatically controlling vehicle speed to a desired cruise speed in a steady mode, therefore, a smooth switching between the steady state mode and transient state mode can be achieved.

Also, as per claims 32, and 36, Etoh discloses the vehicle has a third running mode wherein the driving force is controlled according to third target value until a difference between the second and third target values becomes a predetermined value (see columns 4-6, lines 16-64).

8. Claims 33-34, and 37-38, are rejected under 35 U.S.C.102(b) as being unpatentable over O'Connell et al. (5,646,851), and Togai et al. (5,382,205) as applied to claim 22 above, and further in view of Etoh (5,048,631).

As per claims 33, and 37, O'Connell et al., and Togai et al. ('205) do not disclose controlling the driving force until a difference between the second and third target values

Art Unit: 3661

becomes a predetermined value. However, Etoh discloses controlling the driving force according to third target value until a difference between the second and third target values becomes a predetermined value (see columns 2-3, lines 46-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of O'Connell et al., and Togai et al. ('205) by combining controlling the driving force according to third target value until a difference between the second and third target values becomes a predetermined value for automatically controlling vehicle speed to a desired cruise speed in a steady mode, therefore, a smooth switching between the steady state mode and transient state mode can be achieved.

Also, as per claims 34, and 38, Etoh discloses the vehicle has a third running mode wherein the driving force is controlled according to third target value until a difference between the second and third target values becomes a predetermined value (see columns 4-6, lines 16-64).

Remarks

9. Applicant's argument filed on 6/3/03 has been fully considered and they are deemed to be persuasive. However, upon updated search, the new ground of rejection has been set forth as above.

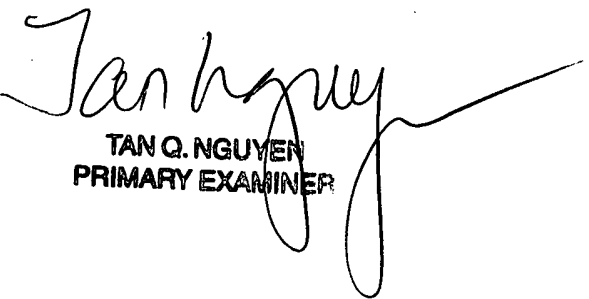
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the

Art Unit: 3661

organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.


TAN Q. NGUYEN
PRIMARY EXAMINER

/dt
September 21, 2003